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Distribution of the Rice Rat in Southern Illinois

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Published records of the occurrence of the swamp rice rat, *Oryzomys p. palustris* (Harlan) , in Illinois (Goldman 1918, Necker and Hatfield 1941, and McLaughlin and Robertson 1951) support the probability expressed by McLaughlin and Robertson (1951:1) that "... the rice rat occurs generally, but uncommonly, in swampy areas throughout portions of Illinois lying south of the Ozark Uplift." The collection of additional specimens, however, provides the basis for a more precise delineation of the range of rice rats in southern Illinois.

The map (Fig. 1) on which collection sites are plotted reveals that the range of the rice rat in Illinois is not limited to the swampy areas south of the Shawnee Hills Section (referred to by McLaughlin and Robertson as "the Ozark Uplift") , but extends northward along the Mississippi River on the west and through the Shawnee Hills Section into the poorly drained upland of the Mt. Vernon Hill Country (Physiographic divisions are after Leighton, Ekblaw and Horberg 1948) . It seems apparent from the distribution of the collection sites that the range of the rice rat is continuous through the Shawnee Hills Section by way of suitable habitat in the Big Muddy River Valley.

The vertical range of rice rats and the tendency of these native rats to be distributed along waterways were described by Miller and Kellogg (1955 :430) as being "... from sea level up along streams to about 500 feet (rarely to 1000 feet) ..." The specimen which was taken one mile northeast of Anna in Union County was collected on the dam of a three-acre farm pond at an elevation of about 500 feet near the source of a

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small waterway well within the Shawnee Hills Section. The specimens reported by McLaughlin and Robertson (1951) are from the cypress. (*Taxodium distichum*) swamps bordering Bay Creek immediately south of Grantsburg (Robertson, personal communication, October 31, 1955) in Johnson County. This locality is also within the area defined as the Shawnee Hills Section. Bay Creek flows southeastward through the east end of Cache Valley and into the Ohio River near Bay City. Specimens have been collected on the western end of Cache Valley in Alexander County. Thus, it seems likely that the range of rice rats in this area enters the southern edge of the Shawnee Hills Section along the Cache Valley wherever suitable habitat exists. The habitat along the Ohio River in Illinois from the vicinity of Golconda to the Saline River Valley seems unsuited to rice rats. Efforts to trap rice rats in the Saline River Valley have met with failure.

McLaughlin and Robertson (1951 :2) direct attention to evidence of rice rat remains in aboriginal kitchen middens as far north as the vicinity of Peoria in north central Illinois and express the possibility that "... this former northward extension of the range of *Oryzomys palustris* may have been due to an increase in population pressure resulting in eruptive spread beyond the normal range limits . . ." That the presence of rice rats along the Big Muddy River Valley north of the Shawnee Hills Section is also a manifestation of population pressures is not evident in notably increased trapping success during the past five years.

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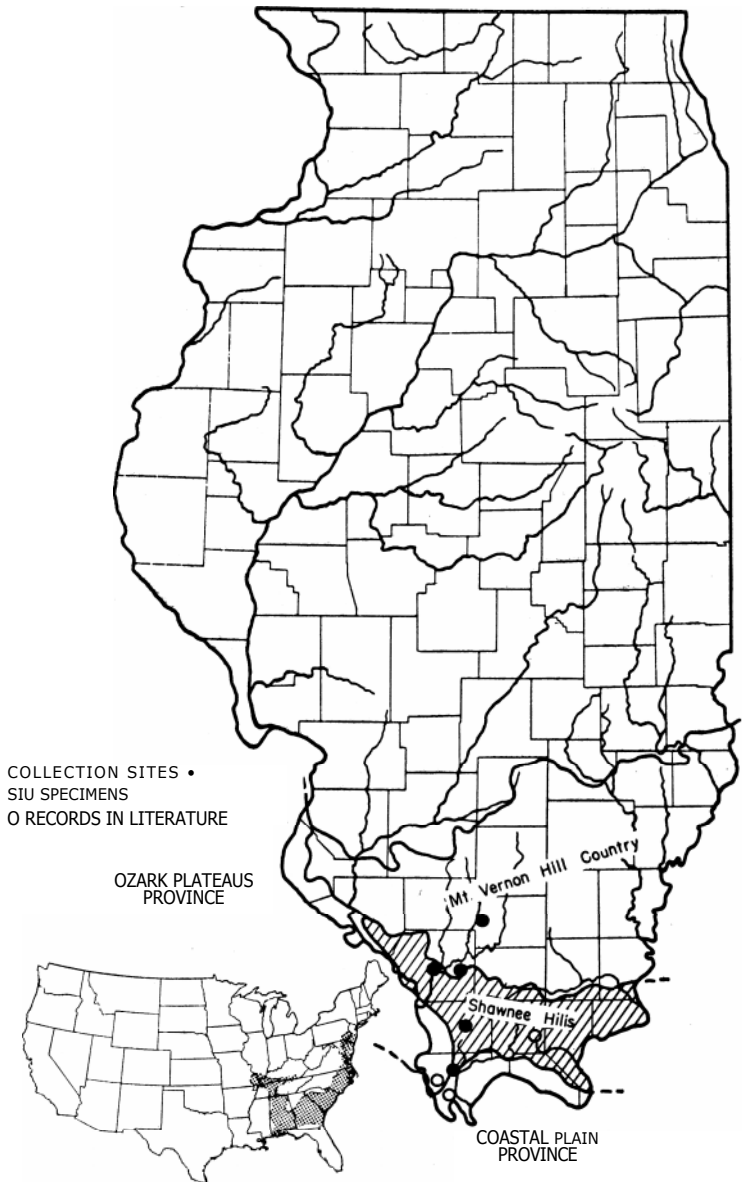


Fig. 1. Distribution of the swamp rice rat in Illinois and in the United States.

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